

KETERANGAN :

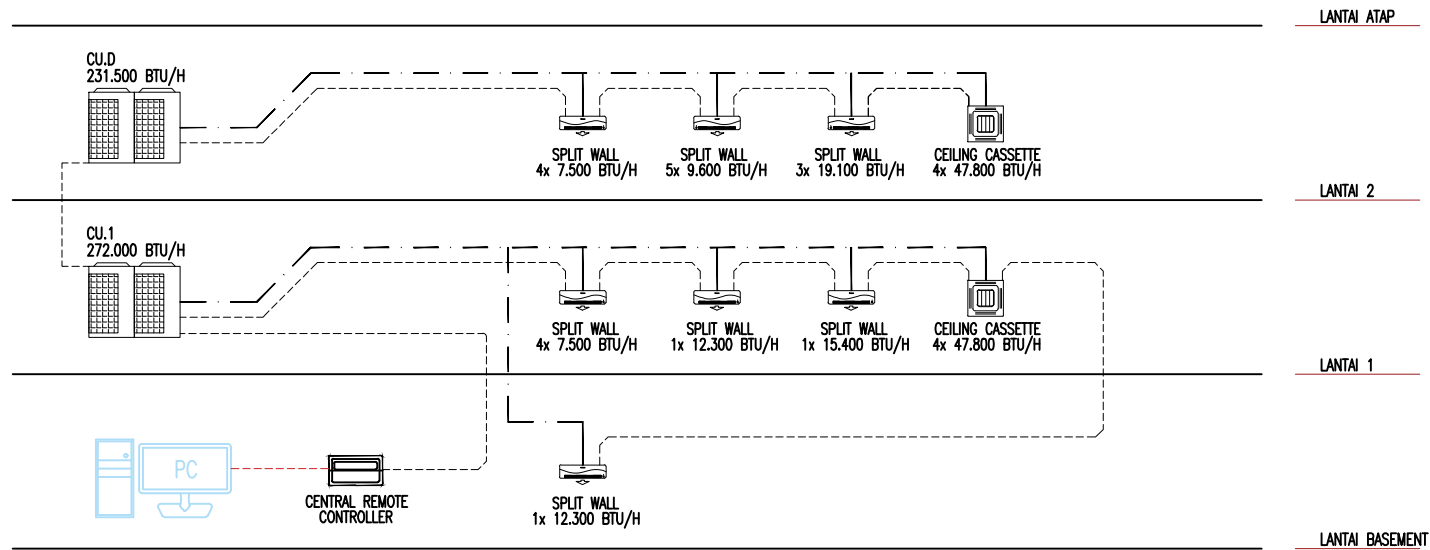
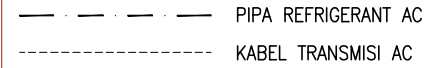


DIAGRAM SKEMATIK AC VRF
SKALA : NTS

NAMA BANGUNAN

GEDUNG ADMISI UMY



UNIVERSITAS MUHAMMADIYAH
YOGYAKARTA

MENGETAHUI/MENYETUJUI

Dr. Ir. GUNAWAN BUDIYANTO, M.P.
REKTOR

PENANGGUNG JAWAB

SRI ATMAJIA P. ROSEYDI, M.Sc. Eng., Ph.D.
WAKIL REKTOR III

TIM PERENCANA
UMY

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STRUKTUR	YOGA A.H. ST., M.Eng	
MEKANIKA ELEKTRIKAL	Agus JAMAL, M.Eng	
DIGAMBAR		

JUDUL GAMBAR	SKALA
DIAGRAM SKEMATIK AC VRF	NTS

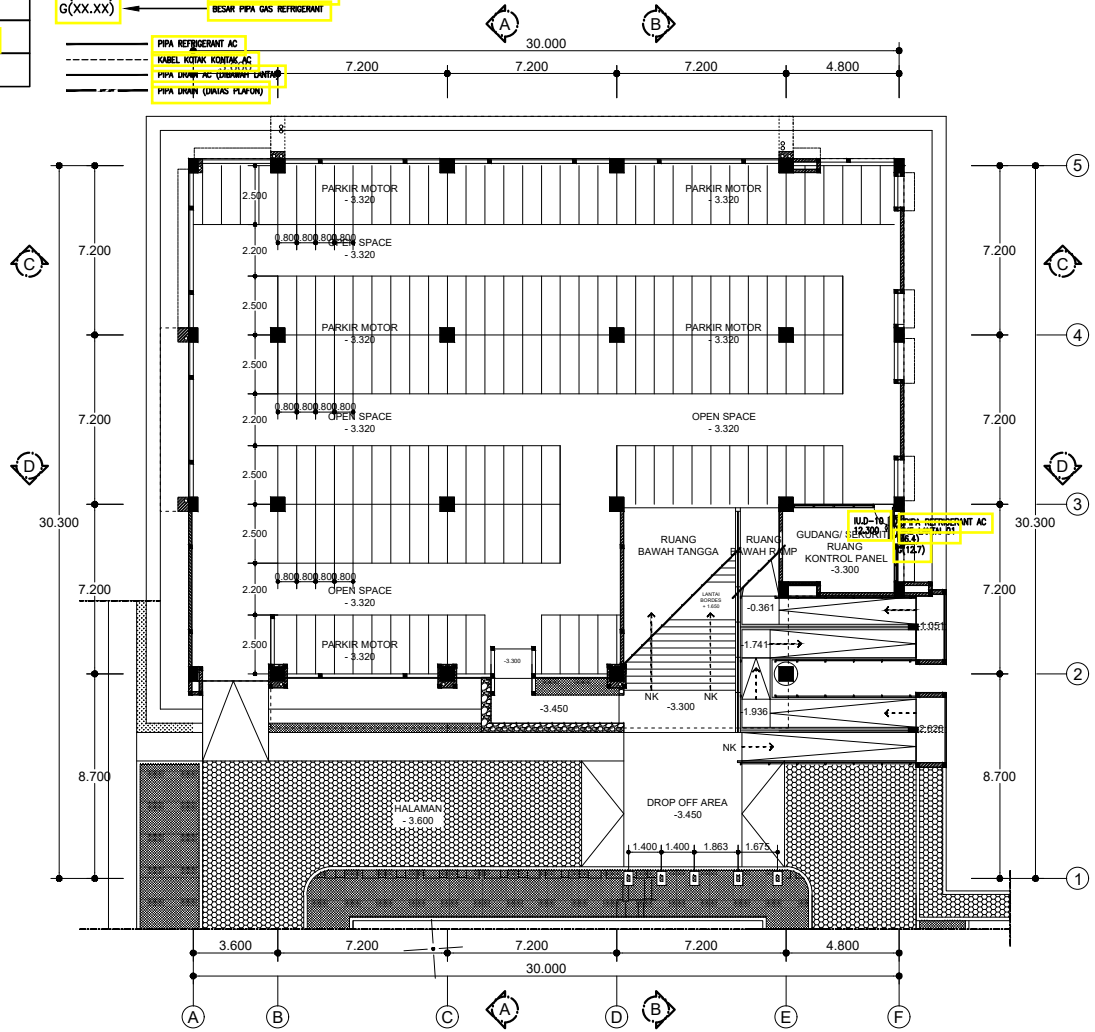
CATATAN/ KETERANGAN

REVISI			
NO.	URAIAN	TANGGAL	PARAF

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
UMY_ADM_BDR		
AC-REF	1	

SIMBOL & KETERANGAN	
	RI : INDOOR UNIT/FAK. COIL UNIT TYPE : GRAY WALL MOUNTED
	RO : INDOOR UNIT/FAK. COIL UNIT TYPE : CEILING CASSETTE
	OU : COMPRESSOR UNIT/OUTDOOR UNIT
	SHAYKH ARREHET/PERCHANGAHAN PIPA REFRIGERANT AC

IU.LG.X-X (XX,XXX)	NO. AC SIFAT/STATUS PENDINGINAN
L(XX.XX)	BESAR PIPA LIQUID REFRIGERANT
G(XX.XX)	BESAR PIPA GAS REFRIGERANT
---	PIPA REFRIGERANT AC
---	KABEL KOTAK KONTAK AC
---	PIPA URIN/AC (DRAINAGE LANTAI)
---	PIPA URIN (DRAIN PLAFON)



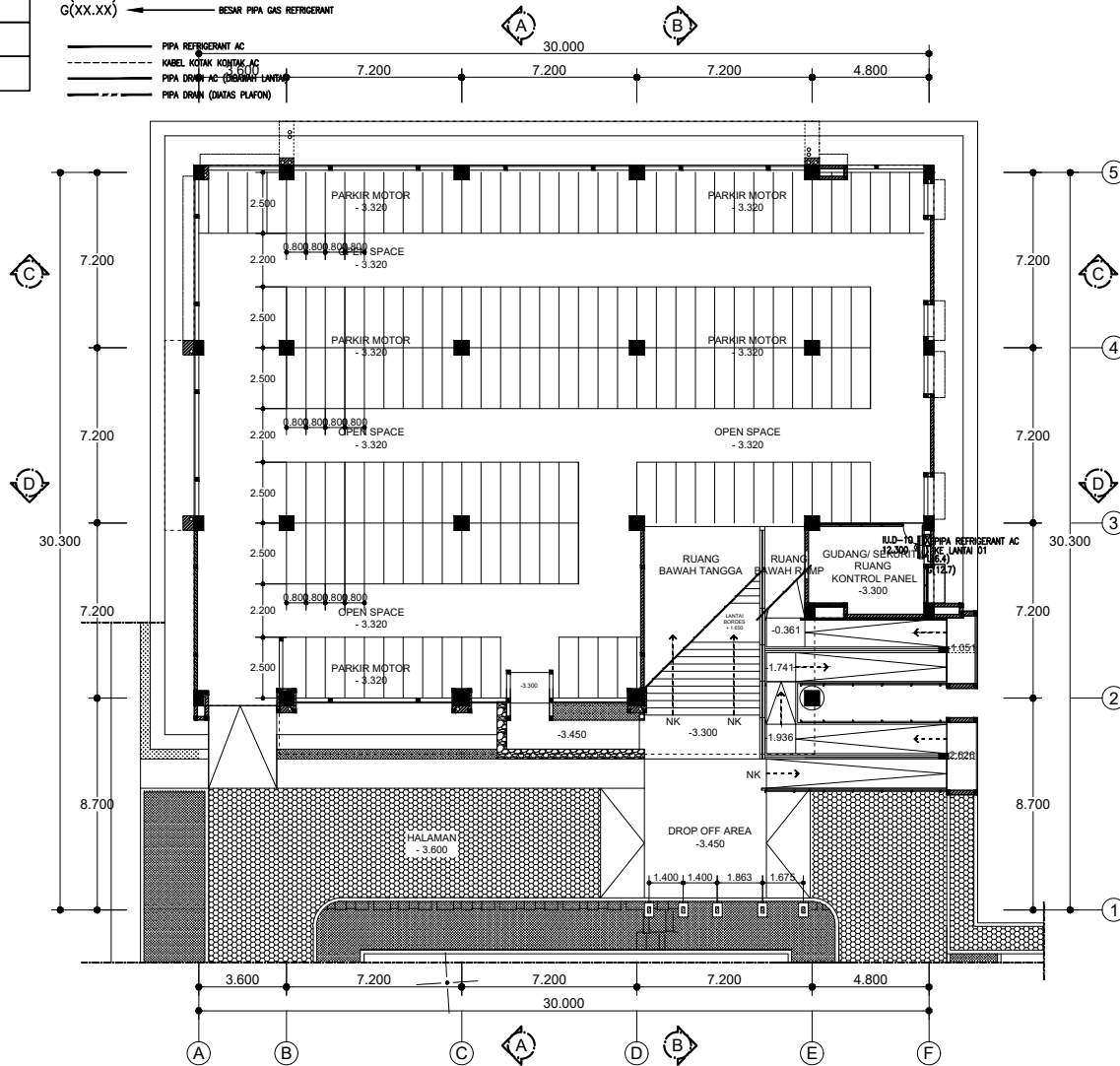
RENCANA REFRIGERANT AC & VENTILASI MEKANIK LANTAI DASAR
 SKALA 1 : 200

NAMA BANGUNAN			
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UNIVERSITAS MUHAMMADIYAH YOGYAKARTA			
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MEKANIKAL	I. AGUS JAMAL, M.Eng		
ELEKTRIKAL			
DIGAMBAR			
JUDUL GAMBAR	SKALA		
RENCANA REFRIGERANT AC & VENTILASI MEKANIK LANTAI DASAR	1 : 200		
CATATAN/ KETERANGAN			
REVISI			
NO.	URAIAN	TANGGAL	PARAF
KODE GAMBAR	NO. GAMBAR	JML. LEMBAR	
UMY_ADM_0108	1		

SIMBOL & KETERANGAN	
	IU : INDOOR UNIT/FAN COIL UNIT TYPE : SPLIT WALL MOUNTED
	IU : INDOOR UNIT/FAN COIL UNIT TYPE : CEILING CASSETTE
	OU : COMPRESSOR UNIT/OUTDOOR UNIT
	BRANCH/RENET/PERUBAHAN PIPA REFRIGERANT AC

IU.LG.X-X ← NO. AC
(XX.XXX)
← KAPASITAS PENDINGINAN
L(XX.XX) ← BESAR PIPA LIQUID REFRIGERANT
G(XX.XX) ← BESAR PIPA GAS REFRIGERANT

PIPA REFRIGERANT AC
KABEL KOTAK KONTAK AC
PIPA DRAIN AC (DIBAWAH LANTAI)
PIPA DRAIN (DIATAS PLAFON)



**RENCANA REFRIGERANT AC &
VENTILASI MEKANIK LANTAI DASAR**



SKALA 1 : 200

NAMA BANGUNAN

GEDUNG ADMISI UMY



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MEKANIKAL ELEKTRIKAL	Agus JAMAL, M.Eng	
DIGAMBAR		

JUDUL GAMBAR

RENCANA REFRIGERANT AC
& VENTILASI MEKANIK
LANTAI DASAR

SKALA

1 : 200

CATATAN/ KETERANGAN

REVISI

NO.	URAIAN	TANGGAL	PARAF

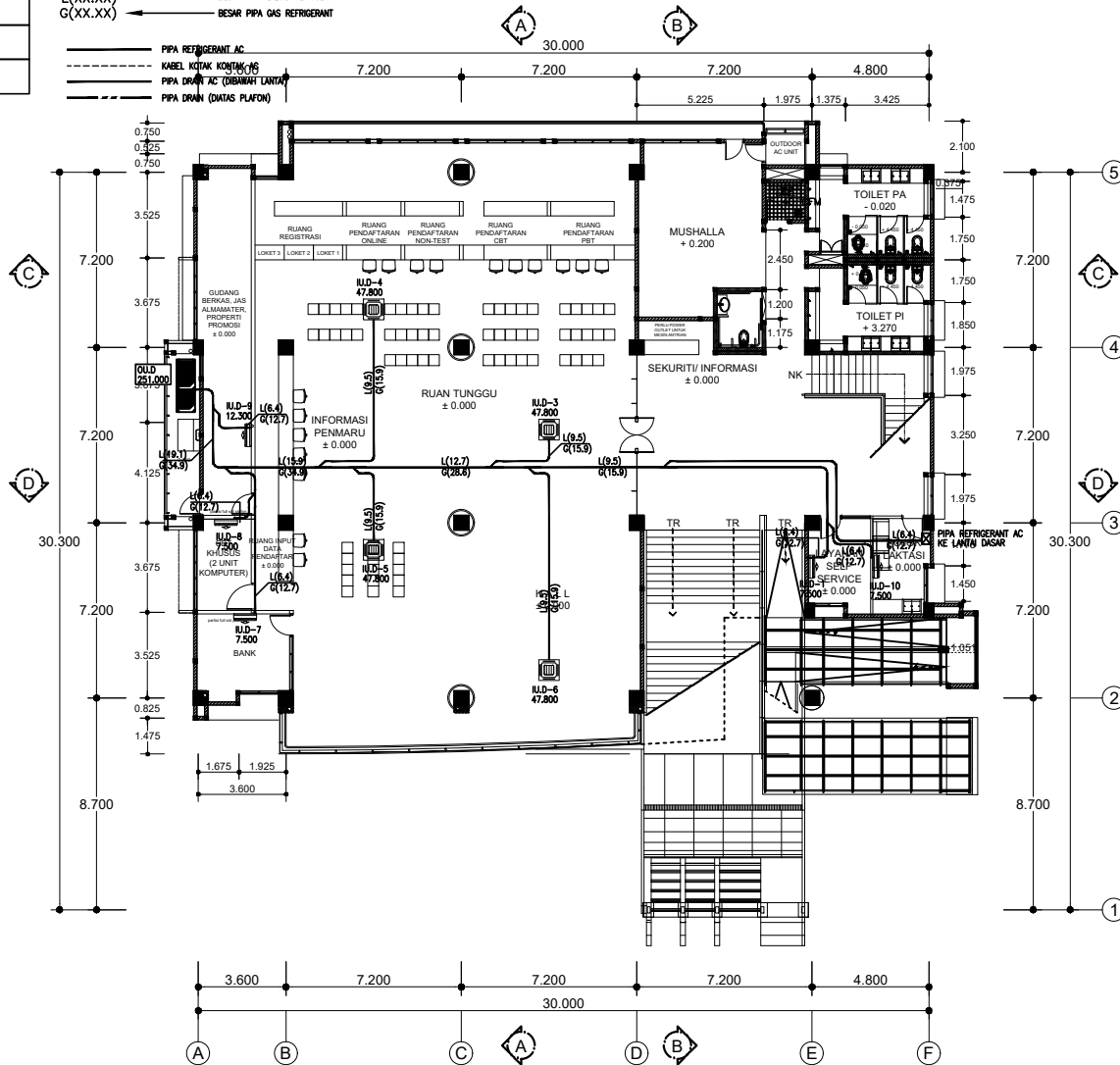
KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
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SIMBOL & KETERANGAN	
	IU : INDOOR UNIT/FAN COIL UNIT TYPE : SPLIT WALL MOUNTED
	IU : INDOOR UNIT/FAN COIL UNIT TYPE : CEILING CASSETTE
	OU : COMPRESSOR UNIT/OUTDOOR UNIT
	BRANCH/REFNET/PERCABANGAN PIPA REFRIGERANT AC


IU.LG.X-X ← NO. AC
(XX.XXX)
KAPASITAS PENGINIHAN

L(XX.XX) ← BESAR PIPA LIQUID REFRIGERANT
G(XX.XX) ← BESAR PIPA GAS REFRIGERANT

— PIPA REFRIGERANT AC
- - - KABEL KOTAK KONTAK MS
- - - PIPA DRAIN AC (DIBAWAH LANTAI)
- - - PIPA DRAIN (DIATAS PLAFON)



RENCANA REFRIGERANT AC & VENTILASI MEKANIK LANTAI 01
SKALA 1 : 200

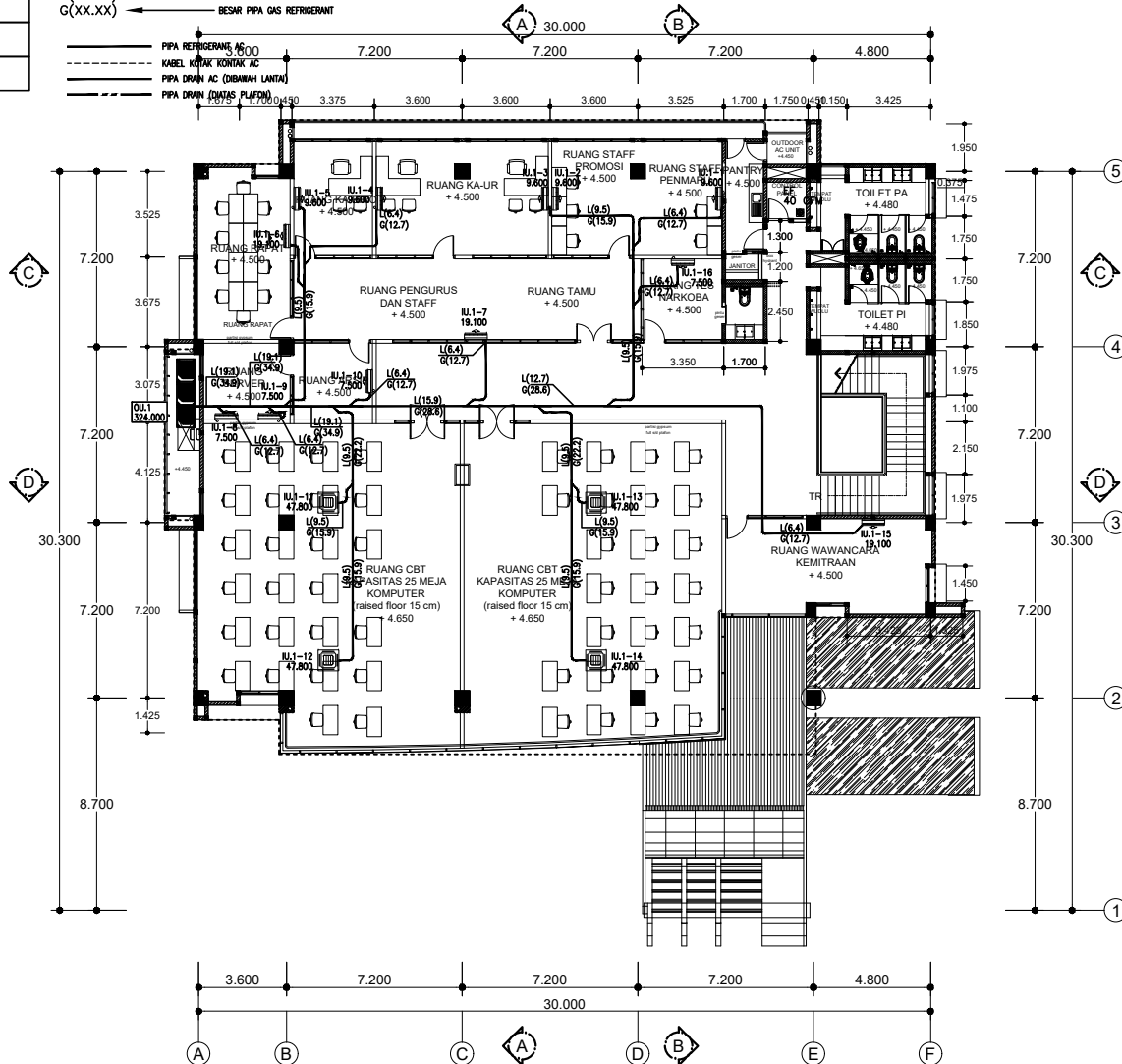
NAMA BANGUNAN			
GEDUNG ADMISI UMY			
			
UNIVERSITAS MUHAMMADIYAH YOGYAKARTA			
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Dr. Ir. GUNAWAN BUDIYANTO, M.P. REKTOR			
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TIM PERENCANA UMY			
	NAMA	PARAF	
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STRUKTUR	YOGA A.H. ST., M.Eng		
MEKANIKA ELEKTRIKAL	Y. AGUS JAMAL, M.Eng		
DIGAMBAR			
JUDUL GAMBAR	SKALA		
RENCANA REFRIGERANT AC & VENTILASI MEKANIK LANTAI 01	1 : 200		
CATATAN/ KETERANGAN			
REVISI			
NO.	URAIAN	TANGGAL	PARAF
KODE GAMBAR	NO. GAMBAR	JML. LEMBAR	
DMV_ZDM_01R	1		

SIMBOL & KETERANGAN	
	IU : INDOOR UNIT/FAN COIL UNIT TYPE : SPLIT WALL MOUNTED
	IU : INDOOR UNIT/FAN COIL UNIT TYPE : CEILING CASSETTE
	OU : COMPRESSOR UNIT/OUTDOOR UNIT
	BRANCH/REFNET/PERCABANGAN PIPA REFRIGERANT AC

IU.LG.X-X NO. AC
(XX.XXX) KAPASITAS PENGINNAN

L(XX.XX) BESAR PIPA LIQUID REFRIGERANT
G(XX.XX) BESAR PIPA GAS REFRIGERANT

PIPA REFRIGERANSI 4500
KABEL KONTAK KONTAK AC
PIPA DRAIN AC (OBANAH LANTAI)
PIPA DRAIN (DRAIN PLAFON)



RENCANA REFRIGERANT AC & VENTILASI MEKANIK LANTAI 02
SKALA 1 : 200

NAMA BANGUNAN			
GEDUNG ADMISI UMY			
UNIVERSITAS MUHAMMADIYAH YOGYAKARTA			
MENGETAHUI/ MENYETUJUI			
Dr. Ir. GUNAWAN BUDIYANTO, M.P. REKTOR			
PENANGGUNG JAWAB			
SRI ATMAJA P. ROSYIDI, M.Sc., Eng., Ph.D. WAKIL REKTOR III			
TIM PERENCANA UMY			
	NAMA	PARAF	
TIM LEADER	BAGUS S. ST., M.Eng		
ARSITEK	ARWAN S. ST., M.Sc		
STRUKTUR	YOGA A.H. ST., M.Eng		
MEKANIKA	Y. AGUS JAMAL, M.Eng		
ELEKTRIKAL			
DIGAMBAR			
JUDUL GAMBAR	SKALA		
RENCANA REFRIGERANT AC & VENTILASI MEKANIK LANTAI 02	1 : 200		
CATATAN/ KETERANGAN			
REVISI			
NO.	URAIAN	TANGGAL	PARAF
KODE GAMBAR	NO. GAMBAR	JML. LEMBAR	
AC-REF	4		

Spesifikasi Tipe Wall Mounted

Model			FXAQ20PVE	FXAQ25PVE	FXAQ32PVE
Cooling Capacity		kW	2.2	2.8	3.6
		Btu/h	7,500	9,600	12,300
Power Consumption	Cooling	kW	0.019	0.028	0.030
Sound Level (H/L)		dB(A)	35/31	36/31	38/31
Dimensions (H x W x D)		mm	290 x 795 x 238	290 x 795 x 238	290 x 795 x 238
Machine Weight		kg	11		
Model			FXAQ40PVE	FXAQ50PVE	FXAQ63PVE
Cooling Capacity		kW	4.5	5.6	7.1
		Btu/h	15,400	19,100	24,200
Power Consumption	Cooling	kW	0.020	0.033	0.050
Sound Level (H/L)		dB(A)	39/34	42/37	47/41
Dimensions (H x W x D)		mm	290 x 1,050 x 238	290 x 1,050 x 238	290 x 1,050 x 238
Machine Weight		kg	14		

Spesifikasi Tipe Ceiling Mounted Cassette (Round Flow)

Model		FXFQ25LUV1	FXFQ32LUV1	FXFQ40LUV1	FXFQ50LUV1	
Cooling Capacity		kW	2.8	3.6	4.5	5.6
		Btu/h	9,600	12,300	15,400	19,100
Power Consumption	Cooling	kW	0.033	0.033	0.047	0.052
Sound Level (HH/H/L)		dB(A)	30/28.5/27	30/28.5/27	31/29/27	32/29.5/27
Dimensions (H x W x D)		mm	246 x 840 x 840			
Machine Weight		kg	19,5			

Model		FXFQ63LUV1	FXFQ80LUV1	FXFQ100LUV1	FXFQ125LUV1	
Cooling Capacity		kW	7.1	9.0	11.2	14.0
		Btu/h	24,200	30,700	38,200	47,800
Power Consumption	Cooling	kW	0.066	0.093	0.187	0.209
Sound Level (HH/H/L)		dB(A)	34/31/28	36/33.5/31	43/37.5/32	44/39/34
Dimensions (H x W x D)		mm	246 x 840 x 840		288 x 840 x 840	
Machine Weight		kg	22		25	

Wall mounted non inverter daikin

SPEKIFIKASI :

Model Name	Indoor Unit		FTNE15MV14	FTNE20MV14	FTNE25MV14	FTNE35MV14	FTNE50MV14	FTNE60MV14	
	Outdoor Unit		RNE15MV14	RNE20MV14	RNE25MV14	RNE35MV14	RNE50MV14	RNE60MV14	
Capacity	Rated	kW	1.46	2.09	2.62	3.35	5.20	6.40	
		Btu/h	5,000	7,000	9,000	11,450	17,750	21,800	
Power Supply			1 Phase, 220 V, 50 Hz						
Running Current	Rated	A	1.9	3.0	3.6	5.0	8.0	9.3	
Power Comsumtion	Rated	W	390	633	819	1,063	1,650	2,032	
COP	Rated	W / W	3.75	3.30	3.20	3.15			
Indoor Unit			FTNE15MV14	FTNE20MV14	FTNE25MV14	FTNE35MV14	FTNE50MV14	FTNE60MV14	
Airflow Rate (H)	m3/min (cfm)		7.2 (254)	8.1 (286)			18.5 (653)		
Fan Speed			5 steps and automatic						
Sound Pressure Levels (H/L)	dB (A)		35/28	37/28		39/33	48/35		48/36
Dimensions (H x W x D)	mm		273 x 784 x 195				290 x 1,050 x 238		
Machine Weight	kg		8				12		
Outdoor Unit			RNE15MV14	RNE20MV14	RNE25MV14	RNE35MV14	RNE50MV14	RNE60MV14	
Casing Colour			Ivory White						
Compressor	Type		Hermetically Sealed Rotary Type						
	Motor Output (W)		350	593	760	900	1,300	1,959	
Refrigerant	Type		R-410A						
	Charge (kg)		0.42	0.65	0.67	0.88	0.90		
Sound Pressure Levels	dB (A)		49	50		51	54	53	
Dimensions (H x W x D)	mm		418 x 695 x 244			550 x 658 x 275	595 x 845 x 300		
Machine Weight	kg		21	24	25	32	36	40	
Operation Range	*CDB		19.4 to 46						

Piping Connection	Liquid	mm	diametre 6.4		
	Gas		diametre 9.5	diametre 12.6	diametre 15.8
	Drain		diametre 18.0		
Max. Piping Length		m	15	20	
Max. Height Difference			12	15	
Measurement conditions :					
1. Cooling capacity is based on : indoor temp. 27 degree CDB, 19 degree CWB; outdoor temp, 35 degree CDB; piping length 5 m.					
2. Sound pressure levels are based on the temperature conditions 1 above. These are anechoic conversion values. These values are normally somewhat higher during actual operation as a result of ambient conditions.					

Ceiling mounted cassette Non-Inverter

		13		18	21	26	
Model Name	Indoor Unit	FCNQ13MV14		FCNQ18MV14	FCNQ21MV14	FCNQ26MV14	
	Outdoor Unit	V14	RNQ13MV14	RNQ18MV14	RNQ21MV14	RNQ26MV14	
		Y14	-	-	-	RNQ26MY14	
Cooling Capacity*1,2		kW	3,8	5,3	6,2	7,6	
		Btu/h	13.000	18.000	21.000	26.000	
Power Consumption		Cooling*1	kW	1,24	1,89	2,21	2,53
COP		W/W		3,07	2,80	2,80	3,00
Indoor Unit	Sound Level (H/L)*3	dB(A)		31/28		35/28	
	Dimensions (H x W x D)	Unit	mm	256 x 840 x 840			

		13		18	21	26	
Model Name	Indoor Unit	FCNQ13MV14		FCNQ18MV14	FCNQ21MV14	FCNQ26MV14	
	Outdoor Unit	V14	RNQ13MV14	RNQ18MV14	RNQ21MV14	RNQ26MV14	
		Y14	-	-	-	RNQ26MY14	
Outdoor Unit	Sound Level*3	Cooling	dB(A)	49	51	52	54
	Dimensions (H x W x D)	mm		550 x 765 x 285	595 x 845 x 300		735 x 825 x 300
Piping Connections	Liquid (flare)	mm		Ø 6,4			Ø 9,5
	Gas (flare)	mm		Ø 12,7		Ø15,9	
	Drain	Indoor Unit	mm	VP25(I.DØ25xO.DØ32)			
		Outdoor Unit	mm	Ø18.0 (Hole)			
Max. Interunit piping length		m		30			30 (equivalent length 50)
Max. Installation level difference		m		10	15		20
Heat insulation		Both liquid and gas piping					

				30	36	42	48		
Model Name	Indoor Unit			FCNQ30MV14	FCNQ36MV14	FCNQ42MV14	FCNQ48MV14		
	Outdoor Unit		V14	-		-	-		
			Y14	RNQ30MY14	RNQ36MY14	RNQ42MY14	RNQ48MY14		
Cooling Capacity*1,2			kW	8,8	10,6	12,5	14,1		
			Btu/h	30.000	36.000	42.600	48.000		
Power Consumption		Cooling*1	kW	2,73	3,31	4,15	5,04		
COP			W/W	3,22	3,20	3,01	2,80		
Indoor Unit	Sound Level (H/L)*3		dB(A)	43/32		44/34	44/36		
	Dimensions (H x W x D)	Unit	mm	298 x 840 x 840					
Outdoor Unit	Sound Level*3	Cooling	dB(A)	55	54	56	58		
	Dimensions (H x W x D)		mm	990 x 940 x 320	1,345 x 900 x 320				
Piping Connections			Liquid (flare)		mm	Ø 9,5			
			Gas (flare)		mm	Ø15,9			
			Drain	Indoor Unit	mm	VP25(I.DØ25xO.DØ32)			
				Outdoor Unit	mm	Ø26.0 (Hole)			
Max. Interunit piping length			m	50 (equivalent length 70)					

		30	36	42	48
Model Name	Indoor Unit	FCNQ30MV14	FCNQ36MV14	FCNQ42MV14	FCNQ48MV14
	Outdoor Unit	V14	-	-	-
		Y14	RNQ30MY14	RNQ36MY14	RNQ42MY14
Max. Installation level difference		m	30		
Heat insulation		Both liquid and gas piping			

- Note:
 - ¹Rated cooling capacities are based on the following conditions: Indoor temp., 27°CDB, 19.0°CWB; outdoor temp. 35°CDB, 24°CWB. Equiv. refrigeration piping, 7.5 m (horizontal).
 - ²Capacities are net, including a deduction for cooling for indoor fan motor heat.
 - ³Anechoic chamber conversion value, measured according to JIS parameters and criteria. During operation these values are somewhat higher owing to ambient conditions.